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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	Polyaluminium Chloride 30% Drinking Water Grade (PAC)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	Polyaluminium Chloride 30% Drinking Water Grade (PAC)
Synonyms	No data available
CAS No.	1327-41-9
EC No.	No data available
Molecular formula	Variable polymeric aluminium chloride
Molecular weight	Variable (polymer)
Relevant identified uses	Drinking water treatment coagulant/flocculant
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Corrosive, but not classified as hazardous; may cause slight skin/eye irritation
Pictogram(s)	None
Signal word	None
Hazard statement(s)	None
Precautionary statement(s)	None
Other hazards	No other hazards were identified in the reviewed sources.

SECTION 3: Composition/information on ingredients

Component	Polyaluminium Chloride 30% Drinking Water Grade (PAC)
CAS No.	1327-41-9
EC No.	No data available
Classification	Corrosive, but not classified as hazardous; may cause slight skin/eye irritation
Concentration	Al2O3 ≥30%

SECTION 4: First-aid measures	
If inhaled	Inhalation: move to fresh air and seek medical attention if respiratory symptoms occur or persist.
In case of skin contact	Skin: remove contaminated clothing and wash with plenty of water
In case of eye contact	Eyes: rinse immediately for at least 15 minutes with eyelids open, remove contact lenses if easy and obtain immediate medical attention.
If swallowed	Ingestion: rinse mouth, give water if conscious and seek medical attention if discomfort occurs or persists.
Most important symptoms and effects	No data available
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	The product is non-combustible. Use water spray, carbon dioxide, dry chemical powder, sand or media suitable for the surrounding fire. Wear standard fire-fighting protection and SCBA in enclosed spaces. Remove exposed containers if safe or cool with water spray; contain fire-fighting water and prevent entry into drains or watercourses.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	No data available
Advice for firefighters	Wear self-contained breathing apparatus and protective clothing appropriate for the surrounding fire.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Avoid raising dust, ventilate and use PPE; evacuate the area for a large spill. Prevent entry into drains, sewers and watercourses. Sweep or vacuum carefully without dispersing dust and place in a dry, sealed, labelled container for recovery or disposal.

SECTION 7: Handling and storage	
Precautions for safe handling	Avoid skin/eye contact and generation or inhalation of dust; handle in a dry environment because the powder is hygroscopic. Wash after handling and prevent uncontrolled discharge. Store in a cool, dry, well-ventilated place in tightly sealed containers/bags, below 35°C recommended, protected from moisture; the SDS gives 12 months in original sealed packaging.
Conditions for safe storage, including incompatibilities	Stored indoors in a dry, ventilated, cool place; do not get wet

SECTION 8: Exposure controls/personal protection	
Occupational exposure limit values	No data available
Biological limit values	No biological limit values were identified in the reviewed sources.

SECTION 8: Exposure controls/personal protection	
Appropriate engineering controls	No product-specific occupational exposure limit was established in the SDS. Use local exhaust where dust is generated, an FFP2/N95 or equivalent particulate respirator for dust, nitrile or PVC chemical-resistant gloves, chemical safety goggles and a face shield for splash/dust risk, and protective clothing/apron. Provide eyewash and safety shower.
Eye/face protection	Use safety eyewear appropriate to the risk of exposure.
Skin and body protection	Wear suitable protective gloves and clothing appropriate to the risk of exposure.
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties	
Physical state	Light yellow powder
Colour	Pale yellow on the AC100S grade product/specification page; the SDS gives yellow to yellowish-brown.
Odour	Odourless or slight.
Melting point / freezing point	No data available in the consulted SDS/TDS for the solid inorganic polymer.
Boiling point / boiling range	Above 100 °C (generic PAC SDS).
Flammability	Not classified as flammable; the SDS describes the product as a non-combustible solid.
Explosion / flammability limits	Not applicable — SDS identifies the product as not explosive; no lower/upper explosion limits are reported.
Flash point	Not applicable — non-flammable solid (SDS).
Auto-ignition temperature	Not applicable — non-combustible inorganic solid; no auto-ignition value is reported.
Decomposition temperature	No numerical temperature reported; hazardous decomposition is not expected under normal conditions of use and storage.
pH	3.0-5.0 (1% aqueous solution)
Viscosity	Not applicable — dry powder.
Solubility	Readily soluble in water (SDS). The AC100S specification limits water-insoluble matter to 1.5% maximum; the cited test report gives 0.3%.
Partition coefficient n-octanol/water	Not applicable — inorganic polymer; no n-octanol/water partition coefficient is reported.
Vapour pressure	Negligible (SDS).
Density and/or relative density	SDS bulk density approximately 400–600 kg/m³. The grade-specific AC100S report gives bulk density 0.77 g/mL against a minimum specification of 0.65 g/mL; these source-specific values are retained without conversion or reconciliation.
Relative vapour density	Not applicable — solid with negligible vapour pressure.
Particle characteristics	Free-flowing, hygroscopic powder; dust may be irritating and prolonged humid-air exposure may cause caking. No particle-size distribution is reported.
Form	Yellow or light yellow powder (generic SDS); this product COA: light yellow powder.

SECTION 10: Stability and reactivity	
Reactivity	Hygroscopic; absorbs moisture and may cake. Reacts with strong bases, precipitating aluminium hydroxide; aqueous solutions can be mildly corrosive to carbon steel during prolonged contact.
Chemical stability	Chemically stable when kept dry and sealed; no special sensitivity to shock/friction, temperature increase within the recommended range or sunlight is reported.
Possibility of hazardous reactions	Hazardous reactions are not expected under normal storage, handling and use; strong bases cause aluminium-hydroxide precipitation.
Conditions to avoid	Avoid humidity/moisture, dust generation and prolonged contact of solutions with carbon steel. Store below 35°C in dry, sealed packaging.
Incompatible materials	Strong bases, strong oxidizers, strong reducing agents and prolonged contact with carbon steel in solution.
Hazardous decomposition products	Not expected under normal conditions of use and storage (SDS).

SECTION 11: Toxicological information	
Acute toxicity	Oral LD50 >5000 mg/kg (rat), described in the SDS as practically non-toxic. Dust may irritate the respiratory tract.
Skin corrosion irritation	Causes skin irritation, Skin Irritation Category 2 (H315).
Serious eye damage irritation	Causes serious eye damage, Eye Damage Category 1 (H318).
Sensitization	Not classified as a skin or respiratory sensitizer based on available data.
Carcinogenicity	Classification criteria for carcinogenicity are not met based on available data; mutagenicity and reproductive-toxicity criteria are likewise not met.
Additional information	STOT single exposure Category 3: dust may cause respiratory irritation (H335). Ingestion in quantity may cause mild gastrointestinal discomfort. Criteria for repeated-exposure STOT and aspiration hazard are not met based on available data.

SECTION 12: Ecological information	
Ecotoxicity	Fish LC50 >100 mg/L (96 h) and Daphnia magna EC50 >100 mg/L (48 h), described as practically non-toxic in the SDS. Not classified as hazardous to the aquatic environment based on available data.
Persistence degradability	Not applicable — inorganic polymer; hydrolyses to aluminium hydroxide, described in the SDS as a naturally occurring, low-solubility species.
Bioaccumulative potential	Not applicable — inorganic and does not bioaccumulate (SDS).
Mobility in soil	Low Koc; Henry's-law value not relevant. The SDS states that it precipitates as aluminium hydroxide in neutral/moist soil.
Other adverse effects	No other adverse effects described; elevated concentrations may affect pH and aluminium levels in receiving water and cause aluminium-hydroxide precipitation. Not assessed as PBT/vPvB because it is an inorganic polymer.

SECTION 13: Disposal considerations	
Product disposal methods	Dissolve and/or neutralize if necessary and dispose through a licensed effluent or hazardous-waste contractor in accordance with local regulations. Avoid dust generation during disposal and prevent uncontrolled environmental discharge.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	No data available
Special precautions for user	Keep containers closed and secured during transport. Follow local transport requirements.

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	AC100S product data: IS 15573:2018 and NSF/ANSI/CAN 60 certified for potable-water dosing up to 200 mg/L; product page also lists REACH and HALAL. SDS: GHS Skin Irritation 2/H315, Eye Damage 1/H318 and STOT SE 3/H335; not a dangerous good under ADR/RID, IMDG or IATA/ICAO in the supplied form/concentration.

SECTION 16: Other information

Full text of H-Statements	None
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: Poly Aluminium Chloride Powder (AC100S) — Vikram/Grasim Product, Specification and Certification Page: https://www.surajchemicals.com/products/poly-aluminium-chloride-powder-ac100s | Poly Aluminium Chloride Powder (AC100S) — Safety Data Sheet (11 November 2026): https://www.surajchemicals.com/documents/msds/Suraj-Chemicals-Poly-Aluminium-Chloride-Powder-AC100S-MSDS.pdf | Poly Aluminium Chloride Powder (AC100S) — Specification Sheet / COA Test Report: https://www.surajchemicals.com/documents/spec-sheets/Suraj-Chemicals-Poly-Aluminium-Chloride-Powder-AC100S-Specification-Sheet-COA-Test-Report.pdf
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.